IN THE CLAIMS:

1.(Currently amended): A loudspeaker comprising:

an enclosure including a folded horn having a base end and a mouth;

a summing throat forming a portion of the folded horn including the base end, the summing throat defining a direction of acoustic energy propagation to promote synchronous and constructive summing of inputs to an acoustic pressure wave building cumulatively through the summing throat from the base end toward the mouth;

a plurality of ~~identical~~ acoustic transducers housed in the enclosure; and

a plurality of radiating outlets ~~throats~~, with at least one radiating port being ~~throat~~ coupled ~~associated~~ with each acoustic transducer for ~~coupling the output~~ transmitting acoustic energy from ~~of~~ the acoustic transducers into the summing throat ~~folded horn~~, the radiating outlets ~~throats~~ being disposed at acoustically spaced locations along the summing throat progressing from the base end forward toward the mouth to initiate and synchronously reinforce the acoustic pressure wave as it moves from the base end toward the mouth.

2.(Currently amended): A loudspeaker as set forth in claim 1, further comprising:

a source of an acoustic range signal; and

transducer drive signal processing circuitry having an individual channel for each

of the audio transducers, the individual channels each being coupled to receive the acoustic range signal and each channel including means for setting a relative phase angle for the acoustic range ~~a time delay element for delaying a~~ signal in a channel as a function of the acoustic spacing of the radiating outlets ~~throat for the audio transducer associated with the channel from the mouth of the folded horn~~ to build an acoustic pressure wave ~~front which builds~~ in a cascade in the summing throat toward the mouth.

3.(Currently amended): A loudspeaker as set forth in claim 2, further comprising:

a plurality of high pressure chambers, at least one acoustic transducer being positioned to direct sound energy into each high pressure chamber, each high pressure chamber further having an elongated port to one of the radiating outlets ~~the folded horn providing a throat for the high pressure chamber~~.

4.(original): A loudspeaker as set forth in claim 3, each channel of the transducer drive signal processing circuitry further comprising:

a band pass filter receiving the acoustic range signal and producing a filtered signal therefrom;

the time delay element receiving filtered signal and producing a delayed, filtered signal; and

a dynamic phase adjustment element receiving the delayed, filtered signal and adjusting the phase of the signal as a function of frequency to produce a

drive signal for an acoustic transducer.

5.(cancelled):

6.(Currently amended): A loudspeaker as set forth in claim 4 ~~5~~, further comprising:

the acoustic transducers having a small vibrational surface area relative to the predominant range of frequencies to be reproduced; and

a plurality of sealed back chambers, one sealed back chamber housing each acoustic transducer.

7.(original): A loudspeaker as set forth in claim 6, further comprising:

the audio transducers being positioned with respect to one another in a linear array, one to each high pressure chamber.

8.(original): A loudspeaker as set forth in claim 6, further comprising:

a plurality of acoustic transducers coupled to each high pressure chamber.

9.(original): A loudspeaker as set forth in claim 4, wherein the band pass filters, delay elements and dynamic phase adjustment elements are realized in a digital signal processor.

10.(Currently amended): Apparatus comprising:

a plurality of high pressure chambers of substantially the same volume;

a plurality of extended acoustic ports, each ~~an~~ extended acoustic port having a constant cross-sectional area and each providing a outlet constricting the outflow of air from ~~each~~ the high pressure chambers;

a horn having a summing section and a mouth, the summing section comprising a base end of the horn furthest removed from the mouth and ~~an elongated~~ a waveguide;

the extended acoustic ports being connected into the summing section at acoustically spaced locations with one ~~beginning~~ at the base end of the horn and subsequent acoustic ports located at sequentially closer locations to the mouth to support a cascade buildup of an acoustic pressure wave; and

a plurality of identical acoustic pressure wave generators, one of each being coupled to radiate into each high pressure chamber.

11.(Previously amended): Apparatus as claimed in claim 10, further comprising:

means for coordinating operation of the acoustic pressure wave generators so that the pressure waves from the radiating ends of the acoustic ports reinforce one another.

12.(Previously amended): Apparatus as claimed in claim 11, wherein the acoustic pressure wave generators are substantially identical transducers and are aligned side by side.

13.(original): Apparatus as claimed in claim 11, wherein the acoustic transducers are

housed in sealed back chambers.

14.(Previously amended): Apparatus as claimed in claim 11, the means for coordinating further comprising drive circuitry for the acoustic pressure wave generators including delay means for synchronizing merger of the pressure waves upon their meeting in the summing section.

15.(Previously amended): Apparatus as claimed in claim 14, the drive circuitry including a pass band filter associated with each of the acoustic pressure wave generators and a dynamic phase adjustment element for each of the acoustic pressure wave generators.